REMARKS

Applicant thanks the Examiner for the indication of allowable subject matter in dependent claims 6-7.

The Examiner rejects claims 12 and 23-27 under 35 U.S.C. Section 112, first paragraph, as failing to comply with the written description requirement. Specifically, the Examiner is unable to find support for the phrase "wherein the input stream is free of embedded tag indicating a source and/or input structure associated with the input stream".

Applicant disagrees. At page 19, line 22, to page 20, line 4, the Specification describes the prior art parsing approach in which a tag is provided to the parser, the tag indicating the type of stream from which the input string is taken, along with the input string to be parsed, to direct the parser how to parse the string to locate the desired information.

At page 8, lines 1-3, the Specification states:

> Unlike the prior art, this embodiment does not require the client to provide a flag external to the input stream to identify or assist in the identification of the input structure and/or computational source.

At page 20, lines 6-12, the Specification states:

> The parser is able to determine autonomously, using a declarative programming rather than a procedural programming approach, from the beginning of the string which set of screens (or which set of sources) are candidates to have generated the input and then heuristically narrow the field to a single candidate and perform the parse without additional external information. The lexer of the heuristic parser is configured to ignore extraneous information in the string.

At page 21, lines 3-7, the Specification states:

> After parsing the beginning of the input string, the parser can determine autonomously which of the language dialects it has been given, without being told explicitly ahead of time by a tag which dialect to expect.

The above language states clear that the parsing architecture of the present invention does not use or require tags extraneous to the input stream to identify the source or input structure of the input stream. It is therefore able to parse input streams without being informed in advance, such as by a tag, about what sort of input is being parsed. (Specification at page 6, lines 8-10.)

Although the language is not identical to the claim language, it supports fully that language. The standard is not literal disclosure, as urged by the Examiner. "To satisfy the written description requirement, a patent specification must describe the claimed invention in sufficient detail that one skilled in the art can reasonably conclude that the inventor had possession of the claimed invention." MPEP 2163.

The Examiner next rejects claims 1-31 on the ground of obviousness-type double patenting as being unpatentable over claims 1-11 of U.S. 6,374,261.

Applicant respectfully traverses the Examiner's rejections.

A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). *See, e.g.*, *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); and *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985). In determining whether a nonstatutory basis exists for a double patenting rejection, the first question to be asked is - does any claim in the application define an invention that is anticipated by, or is merely an obvious variation of, an invention claimed in the patent? If the answer is yes, then an "obviousness-type" nonstatutory double patenting rejection may be appropriate. Obviousness-type double patenting requires rejection of an application claim when the claimed subject matter is not patentably distinct from the subject matter claimed in a commonly owned patent, when the issuance of a second patent would provide unjustified extension of the term of the right to exclude granted by a patent. *See Eli Lilly & Co. v. Barr Labs., Inc.*, 251 F.3d 955, 58 USPQ2d 1869 (Fed. Cir. 2001); Ex parte Davis, 56 USPQ2d 1434, 1435-36 (Bd. Pat. App. & Inter. 2000).

Since the analysis employed in an obviousness-type double patenting determination parallels the guidelines for a 35 U.S.C. 103(a) rejection, the factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103 are employed when making an obvious-type double patenting analysis. These factual inquiries are summarized as follows:

(A) Determine the scope and content of a patent claim relative to a claim in the application at issue;

(B) Determine the differences between the scope and content of the patent claim as determined in (A) and the claim in the application at issue;

(C) Determine the level of ordinary skill in the pertinent art; and

(D) Evaluate any objective indicia of nonobviousness.

With this in mind, the issued claim 1 of U.S. 6,371,261 is as follows:

> 1. A method of automatically updating a knowledge base comprising a database that stores information pertaining to a subject, comprising:
>
> in response to obtaining a file of information that is at least in part expressed in natural-language form, analyzing the file by computer to identify therein types of information pertaining to the subject;
>
> analyzing by computer the information of the identified types by executing an intelligent filter that uses heuristics to identify therein items of information for storage in the knowledge database;
>
> extracting by computer the found items of information from the file;
>
> arranging by computer the extracted items by their types into a database record; and
>
> storing by computer the database record in the knowledge database.

The differences between the above claim and the pending independent claims are shown by italicized language below:

1. A system for parsing an arbitrary input stream, comprising:

a *plurality* of parsers operable to parse an input stream, *each parser corresponding to a unique input structure*;

a parser selection agent operable to receive the input stream and select a subset of the plurality of parsers to parse the input stream, wherein the input stream comprises a plurality of differing input structures and wherein the selected subset of parsers produce multiple parser outputs corresponding to the plurality of differing input structures; and

an encoding agent operable to convert the multiple parser outputs to a common grammar.

8. A method for parsing an arbitrary input stream, comprising:

(a) receiving an input stream, the input stream comprising information *defined by at least first and second input structures*;

(b) providing, *substantially simultaneously*, a common portion of the input stream to *each of a plurality of parsers, the plurality of parsers corresponding to differing sets of grammars*;

(c) receiving output from each of the *plurality* of parsers; and

(d) based on the outputs of the plurality of parsers, performing at least one of:

(i) *selecting a first output from a first parser that corresponds to the first input structure and a second output from a second parser that corresponds to the second input structure*; and

(ii) s*electing a first parser corresponding to the first input structure to parse one or more first segments of the input stream and a second parser corresponding to the second input structure to parse one or more second segments of the input stream.*

23. A method for parsing computer generated information, comprising:

receiving a stream of information, *the stream being generated by one of a plurality of possible different computational sources, wherein each computational source generates a stream corresponding to a unique input structure and wherein each of a plurality of differently structured segments of the stream is free of an embedded tag indicating a corresponding computational source and/or input structure for the respective segment*;

comparing at least a portion of the stream with *multiple different sets of tokens to provide a subset of tokens identified in the at least a portion of the stream, each set of tokens corresponding to a unique input structure*;

based on the subset of ttokens, heuristically identifying, from among at least one of a plurality of possible input structures and a plurality of possible computational sources, at least one of an input structure corresponding to the at least a portion of the stream and a computational source for the at least a portion of the stream; and

parsing the stream based on the identified at least one of an input structure and computational source.

28. An autonomous heuristic parser, comprising:

an input operable to receive a stream of information, *the stream being generated by one of a plurality of possible different computational sources, wherein each computational source generates a stream corresponding to a unique input structure*; and

a parser operable to (a) *compare at least a portion of the stream with multiple different tokens to provide a subset of tokens identified in the at least a portion of the stream, each token corresponding to a unique input structure*; (b) *based on the subset of tokens, identify, from among at least one of a plurality of possible input structures and a plurality of possible computational sources, at least one of an input structure corresponding to the at least a portion of the stream and a computational source for the at least a portion of the stream*; and (c) *parse the stream based on the identified at least one of an input structure and computational source, wherein the parser is not provided with an input structure identifier, other than the corresponding input structure itself, either in or external to the at least a portion of the input stream to identify or assist in the identification of the at least one of the respective input structure corresponding to the at least a portion of the stream and a computational source for the at least a portion of the stream.*

Accordingly, there is not obviousness-type double patenting.

The Examiner rejects claim 26 under 35 U.S.C. 112, second paragraph. Applicant has amended claim 26 to overcome this rejection.

The Examiner rejects claims 1-31 under 35 U.S.C. 102(e) as being anticipated by Johnson (U.S. 2002/0141449).

Applicant disagrees. Johnson fails to teach or suggest at least the following italicized features of the pending independent claims:

1. A system for parsing an arbitrary input stream, comprising:

a plurality of parsers operable to parse an input stream, each parser corresponding to a unique input structure;

a parser selection agent operable to receive the input stream and select a subset of the plurality of parsers to parse the input stream, wherein the input stream comprises a plurality of differing input structures and wherein the selected subset of parsers produce multiple parser outputs corresponding to the plurality of differing input structures; and

an encoding agent operable to convert the multiple parser outputs to a common grammar.

8. A method for parsing an arbitrary input stream, comprising:

(a) receiving an input stream, the input stream comprising information defined by at least first and second input structures;

(b) *providing, substantially simultaneously, a common portion of the input stream to each of a plurality of parsers, the plurality of parsers corresponding to differing sets of grammars*;

(c) receiving output from each of the plurality of parsers; and

(d) *based on the outputs of the plurality of parsers, performing at least one of*:

(i) *selecting a first output from a first parser that corresponds to the first input structure and a second output from a second parser that corresponds to the second input structure*; and

(ii) *selecting a first parser corresponding to the first input structure to parse one or more first segments of the input stream and a second parser corresponding to the second input structure to parse one or more second segments of the input stream.*

23. A method for parsing computer generated information, comprising:

receiving a stream of information, the stream being generated by one of a plurality of possible different computational sources, wherein each computational source generates a stream corresponding to a unique input structure and *wherein each of a plurality of differently structured segments of the stream is free of an embedded tag indicating a corresponding computational source and/or input structure for the respective segment*;

comparing at least a portion of the stream with *multiple different sets of tokens to provide a subset of tokens identified in the at least a portion of the stream, each set of tokens corresponding to a unique input structure*;

heuristically identifying, from among at least one of a plurality of possible input structures and a plurality of possible computational sources, at least one of an input structure corresponding to the at least a portion of the stream and a computational source for the at least a portion of the stream; and

parsing the stream based on the identified at least one of an input structure and computational source.

28. An autonomous heuristic parser, comprising:

an input operable to receive a stream of information, the stream being generated by one of a plurality of possible different computational sources, wherein each computational source generates a stream corresponding to a unique input structure; and

a parser operable to (a) compare at least a portion of the stream *with multiple different tokens to provide a subset of tokens identified in the at least a portion of the stream, each token corresponding to a unique input structure*; (b) *based on the subset of tokens, identify, from among at least one of a plurality of possible input structures and a plurality of possible computational sources, at least one of an input structure corresponding to the at least a portion of the stream and a computational source for the at least a portion of the stream*; and (c)

parse the stream based on the identified at least one of an input structure and computational source, *wherein the parser is not provided with an input structure identifier, other than the corresponding input structure itself, either in or external to the at least a portion of the input stream to identify or assist in the identification of the at least one of the respective input structure corresponding to the at least a portion of the stream and a computational source for the at least a portion of the stream.*

Claim 1 is directed to the use of a meta-parser to select an arbitrary input stream corresponding to a plurality of grammars to produce respective abstract syntax trees followed by an encoder converting the abstract syntax trees to a common grammar. In contrast, Johnson teaches using specific parsers to parse nested grammars and forming each grammar into a corresponding abstract syntax tree. However, Johnson *does not* teach an encoding agent to convert the various different abstract syntax trees into a common grammar-Johnson does not even make mention of "encoding" anywhere in the application.

Claim 8 is directed to providing a common part of the arbitrary input to multiple parsers and, based on the outputs of the parsers, selecting an appropriate parser. The Office Action asserts that this feature is taught at paragraphs [0044], [0047] to [0050] and [0120]. These passages teach a chain-type approach to parser selection in which the parser selector 80 selects the initial parser. The initially selected parser parses the message body until a different grammar is encountered. That parser, and not the parser selector 80, then selects a next parser to handle the nested grammar, and so on.

Claims 23 and 28 are directed to parsing an input stream, that is free of an embedded tag indicating a corresponding computational source and/or input structure, by comparing a selected portion of the input stream with multiple different sets of tokens or tokens corresponding to differing grammars to provide one or more subsets of tokens identified in the input stream and, based on the identified subsets of tokens, selecting a set of tokens to be used in parsing the remainder of the input stream. While Johnson teaches that the message type and format information in the header is critical to the parser recognizing the message structure and format, *e.g.*, ¶[0037] and [0044], these passages clearly illustrate that the message structure, and *not a parser output*, is key to selecting an appropriate parser.

Accordingly, the pending claims are allowable.

The dependent claims provide further reasons for allowance.

Based on the foregoing, Applicants believe that all pending claims are in condition for allowance and such disposition is respectfully requested. In the event that a telephone conversation would further prosecution and/or expedite allowance, the Examiner is invited to contact the undersigned.

Respectfully submitted,

SHERIDAN ROSS P.C.

Date: Sept 23, 2008

By: Douglas Swartz

Douglas W. Swartz
Reg. No. 37,739
1560 Broadway, Suite 1200
Denver, Colorado 80202
Telephone: 303-863-9700